

# WALL MOUNTED BATH BRUSH

## RELATED APPLICATIONS

[0001] This application is a continuation-in-part of U.S. Serial No. 09/490,027 filed January 21, 2000, entitled "Wall Mounted Bath Brush".

## TECHNICAL FIELD

[0002] The present invention is directed to wall mounted bath brush assemblies and methods and in particular to wall mounted bath brush assemblies comprising at least one sponge.

## BACKGROUND ART

[0003] Various brushes exist for bathing the human body. A number of those brushes are wall mounted and removably attachable. One such brush assembly is disclosed in U.S. Patent No. 4,759,091 to Kiss. The brush assembly of the '091 Patent is attachable to a wall and has a pair of spaced-apart elongated brushes mounted on a base. A hanger engages a bath or shower wall member and includes a hook for insertion within an opening in the base. Wall attachment is by suction cups on the rear side of the base with a lever provided for urging the base away from the supporting wall surface and facilitating return of the brush assembly to a stowed position. A double-sided adhesive may be used to permanently secure the base to a wall surface.

[0004] Another wall mounted bath brush and method is disclosed in U.S. Patent No. 5,228,165 to Westberry et al. The '165 Patent discloses a brush for scrubbing and scratching the human body. The '165 brush includes a plate portion having a front face and a rear face, a plurality of bristles extending from the front face, and an attachment mechanism for attaching the brush to a wall. The attachment mechanism preferably provides removable attachment to a wall, and may be a plurality of suction cups. The front face of the plate portion preferably has essentially the same surface area as an average person's back and

its outer edges of the front face optionally have the essential outline of the upper human torso. The bristles, provided in clusters, optionally have a stiffness and end roundable suitable for comfortably scratching a person's back when dry.

[0005] U.S. Patent No. 5,277,389 discloses a shower back scrubber having a holder which adheres to the shower wall using suction cups. Mounted on the holder is a sponge which can be quickly replaced or used.

[0006] Other wall attachable brushes and sponges are disclosed in U.S. Patent Nos. 4,417,362; 4,020,519; 3,631,560 and 3,750,226. Apparently, for one or more reasons, the disclosed arrangements have not found wide acceptance with the public as they do not appear to be readily available in retail establishments. None of the references appear to disclose a bath brush having a central bore with a plurality of bristles extending therein.

[0007] It is an advantage of the present invention to provide a bath brush which does not require the bather to twist and contort to scrub.

[0008] It is another advantage of the present invention to provide such a bath brush which can be detachably fixed to a shower wall.

[0009] It is still another advantage of the present invention to provide such a brush that is adapted to wash an arm of a handicapped person or stroke victim who lacks the use of both arms.

[0010] It is still another advantage of the present invention to provide such a brush which is simple, durable and inexpensive to produce.

#### SUMMARY OF THE PRESENT INVENTION

[0011] A bath brush assembly and method for cleaning an appendage, such as a limb, of a handicapped person or stroke victim. The bath brush assembly is wall-mounted and has a frame with a bore extending therethrough. At least one sponge is mounted to the frame within the bore. The frame may have various shapes and be formed of modular components. Joined to the frame are a number of suction cups which provide a detachable connection to the wall of a shower or bathtub.

## BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Various other features and advantages of the invention will become apparent to those skilled in the art from the following discussion taken in conjunction with the following drawings, in which:

[0013] FIG. 1A is a perspective view of a bath brush in accordance with the present invention;

[0014] FIG. 1B is a top view of the embodiment shown in FIG. 1A;

[0015] FIG. 2 is a top view of another embodiment of the present invention;

[0016] FIG. 3 is a top view of another embodiment of the present invention;

[0017] FIG. 4 is a top or side view of another embodiment of the present invention having a plurality of sponges.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0018] Referring to FIG. 1A, a bath brush 10 is disclosed. Bath brush 10 has a cartridge 20. The cartridge 20 of bath brush 10 has a front surface 30 as well as a rear surface 40 (FIG. 1B). The cartridge 20 is preferably made of a polymeric material.

[0019] As shown in FIG. 1, the cartridge 20 has a flat cubical or rectangular shape. The cartridge 20, however, may have other shapes including, for example, a semi-spherical or dome shape. Additionally, the front surface 30 is not required to be flat. The front surface may have, for example, a concave, convex, or other shape (not shown).

[0020] Referring to FIG. 1A, a plurality of bristles 50 are shown extending from the front surface 30. The bristles may be, for example, a polymer fiber, or other material suitable for bath brushes. The bristles 50 may be attached to the front surface 30 by, for example, adhesives, heat bonds, epoxy, or press-fitting.

[0021] The bath brush of FIG. 1A also shows two suction cups 90 extending from the rear surface 40 for gripping or fastening to a wall of the shower or bath tub. Although only two suction cups are shown, more may be

employed. The number and size of the suction cups may be increased to ensure that the brush assembly stays affixed to the wall during use. The suction cups 90 may be joined to the rear surface 40 using adhesives, screws, or ties such as, for example, a wire tie.

[0022] FIG. 2 shows another bath brush assembly in accordance with the present invention. The bath brush assembly 100 has a frame 110. The bath brush assembly 100 further comprises a bore 120 extending through the frame 110. Extending into the bore 120 are a plurality of bristles 130. The bristles 130 are the same as those described in the previous embodiments and extend from an inner surface of the frame 110.

[0023] The frame 110 is preferably made of plastic. The frame 110 may be integral or be composed of modular components. If the frame 110 is comprised of modular components, the modular components may be identical to one another and glued together using, for example, an adhesive or epoxy.

[0024] FIG. 3 shows another aspect of a bath brush assembly in accordance with the present invention. In FIG. 3, a support member 95 is shown joined to frame 110. The support member 95 provides a larger surface for the suction cups 90. Thus, more suction cups 90 may be employed in the bath brush assembly 100 of FIG. 3 than the bath brush assembly of FIG. 2. The additional suction cups provide enhanced gripping force and ensure that the bath brush assembly will stay affixed during operation.

[0025] The support member may be made of, for example, plastic. The support member may be attached to the frame 110, for example, using various bonding or fastening techniques. Examples of bonding techniques are adhesive bonds or heat bonds. Alternatively, the support member may be attached to frame 110 with a fastener such as, for example, screws or rivets.

[0026] In operation, the bath brush assembly 100 may be used for bathing and scrubbing an appendage such as a leg or arm of a handicapped person or stroke victim. A handicapped person, for example, simply inserts her arm through the bore 120. The handicapped person moves her arm against the bristles 130 to

scrub her arm. In this manner, a handicapped person with use of only one arm may clean her arm without assistance.

[0027] FIG. 4 illustrates another bath brush assembly in accordance with the present invention. The bath brush assembly 200 shown in FIG. 4, unlike the variations described above, includes a plurality of sponges 210 mounted to the inside of the frame 220. The sponges 210 are within the bore formed by the frame 220. The sponges are particularly well suited for soaping and cleaning the skin.

[0028] The sponges may be attached to the frame alone or in combination with the bristles. The sponges may be permanently or removable mounted to the frame. For example, the sponges may be mounted using an adhesive substance. Also, the frame may contain a recess to receive and hold the sponges. The sponges are inserted into the recess and remain fixed during washing. However, the sponges may be removed if pulled perpendicularly from the frame. Other mechanical and non-mechanical means may be used to connect the sponge to the frame as is known to those of skill in the art.

[0029] A wide variety of sponges may be used to carry out the present invention including natural and synthetic sponges. Examples of sponges include porous plastics, rubber, cellulose and other porous absorbent materials. Also, in one particular variation the absorbent skeleton of certain types of sponges (the marine invertebrate animal) can be used to carry out the present invention. In each variation, however, the sponges are absorbent and perhaps highly absorbent holding upwards of 10 times their own weight when wet. The sponges typically can have pores and the pore size may be that found in conventional sponges including pore sizes as low as 200 microns. *See, for example, RAMERFOAM®.* The pore size may be uniform or nonuniform throughout the sponge.

[0030] The sponges may have various shapes including spherical, rectangular, and cubic shapes. However, other shapes may be suitable for certain applications. For example, a hollow elongate cylindrical sponge may be constructed to line the frame 220 instead of a plurality of cubic sponges.

[0031] Accordingly, the present invention provides a convenient method and assembly for a handicapped person to sponge bath. The sponges, unlike

bristles, can provide a soft absorbent water rinse and remain moistened. The person inserts their arm, for example, through the bore contacting the sponges. As the person moves their arm forward and back, the arm is cleaned. In a variation, the sponge is rough and not soft.

[0032] While the invention has been described, disclosed, illustrated and shown in various terms for certain embodiments or modifications which it has assumed in practice, the scope of the invention is not intended to be, nor should it be deemed to be, limited thereby, and such other modifications or embodiments as may be suggested by the teachings herein are particularly reserved, especially as they fall within the breadth and scope here appended.

[0033] All publications, patent applications, patents, and other references mentioned herein are incorporated by reference in their entirety. To the extent there is a conflict in a meaning of a term, or otherwise, the present application will control.